

DSP-4

• Northern blot analysis

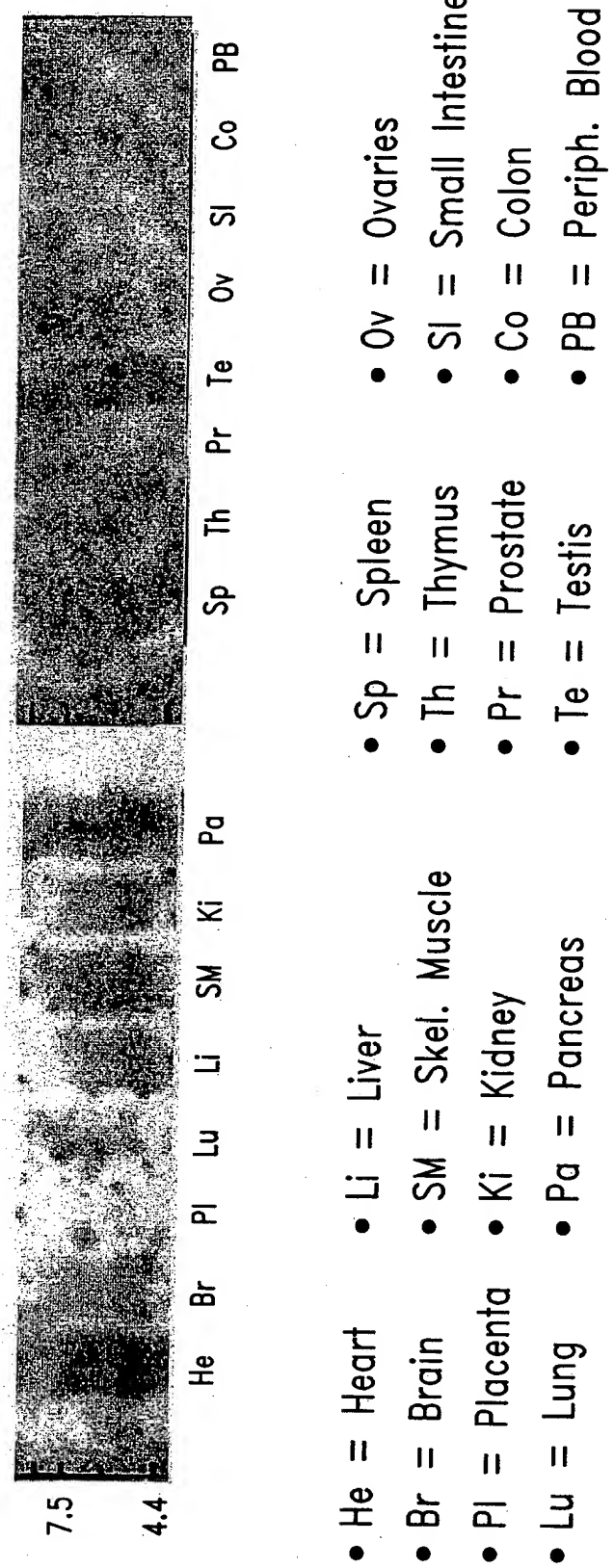


Fig. 4



Title: DSP-4 DUAL-SPECIFICITY PHOSPHATASE

Express Mail No. EV348169729US

Inventor(s): Ralf M. Luche and Bo Wei Serial No. 09/544,517 Docket No. 200125.410

DSP4, ENCODED BY 651 BASE PAIRS

ACATTGCATC CCTGGGATAA ACGGACCTGG ACAACTCACT CTCTTGGTCT GTGGCTGCTG CGGTTACCTG GATGGGCGAA CACCTCTGAG
GCTGGCTTTG TTACCTGGGC AATAAGGGAC TAGCAGTTCA GCCGTTTTCT ATGCCTGCTG GATTTGTTG TATTGTTCC CAGCCACTGC
TCATGTAATG TACTCCCTTA ACCAGGAAAT TAAAGCATT CCCCAGGAATA ATCTCAGGAA GCAATGCACC AGGGTGACAA CGCTAACTGG
AAAGAAAATT ATAGAAACAT GGAAAGATGC CAGAATTCAT GTTGTGGAAG AAGTAGAGCC GAGCAGTGGG GGTGGTTGTG GTTATGTGCA
GGACCTTAGC TCGGACCTGC AAGTTGGCGT TATTAAGCCA TGGTTGCTCC TAGGGTCACA AGATGCTGCT CATGATTTGG ATACACTGAA
AAAGAATAAG GTGACTCATA TTCTTAATGT TGCATATGGA GTTGAAAATG CTTTCCTCAG TGACTTTACA TATAAGAGCA TTTCTATATT
GGATCTGCCT GAAACCAACA TCCTGTCTTA TTTCCAGAA TGTTTTGAAT TTATTGAAGA AGCAAAAAGA AAAGATGGAG TGGTTCTTGT
TCATTGTAAT GCAGGCGTTT CCAGGGCTGC TGCAATTGTA ATAGGTTTCC TGATGAATTC TGAACAAACC TCATTTACCA GTGCTTTTTC
TTTGGTGAAA AATGCAAGAC CTTCCATATG TCCAAATCT GGCTTCATGG AGCAGCTTCG TACATATCAA GAGGGCAAAG AAAGCAATAA
GTGTGACAGA ATACAGGAGA ACAGTTCATG AGTTGCATTG TAGCAGACAA TGGACAACTG TAGTTTCTGA ATTGACTTCT ATAGCCATCT
TTTCCCTTTT TTGGAGAGTA GACTAGCAAA ACTCCCTTTT TTCTCTTGCC TTTTTATGC ATAAATGGAG GTCAATCTGA TTGTCCTGAC
CTACTGTATA AGTAAATTC AAATGTCATT ACTTCTCTT TGTATTATA ATGTGTGATT AAATGCTTTT TAAATGCT AAGGGAAAAT
AAAAAA

Fig. 1

TRANSLATED, 217 AMINO ACIDS

MYSLNQEIKAFSRNNLRKQCTRVTTLTGKKIIETWKDARIHVVEEVEPSSGGGCGYVQDLSSDLQVGVIKRWL
LLGSQDAAHDLDTLKKNVTHILNVAYGVENAFSLDFTYKISILDLPETNLSYFPECFEFIEEAKRKDGVV
LVHCNAGVSRAAAIVIGFLMNSEQTSFTSAFSLVKNARPSICPNSGFMEQLRITYQEGKESNKCRIQENSS

Fig. 2



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1 10 20 30 40 50 60 70 80 90 100
PYST1, SOLDRD-PNSATDSGSPLSNSQSPFV-EILPFLYLGCAGKSTNLDVLEFGIKYILNTPNLPNFENAGFKYKQIPISDMWSQNLQSFPEAISFI
MKP-7, DRELPSATESDGPVPSSQPAFV-QILPFLYLGCAGKSTNLDVLEFGIKYILNTPNLPNFAFHGGFTYKQIPISDMWSQNLQSFPEAISFI
hVH5 GLCEGPAALLPMSLSQPCLPVPSVGLTRILPHLYGSKQVNLKDLWTQNGISYLVNASWCPK-DFICESRFMRVPINDVYCEKLLPMLDKSIEFI
PAC1 PAQALPPAGAENSNDPRVPIDQGGPVEILPFLYLGSCNHSDDLQGLQACGTTAVLNVSASCPNHF--GLFHYKSPVEDNQMVESAMFQFAISFI
MKP-1, PLSTVPSAESGSCSTPLVDQGGPVEILPFLYLGSAHARXKMDLALGITALINVSANCPNHF--GHYQYKSPVEDNHKADISSWFNEAIDFI
MKP-4, PVPPSATEPLDGCSSCGTPLHDQGGPVEILPFLYLGSAHARXKMDLALGITALINVSANCPNHF--GHYQYKSPVEDNHKADISSWFNEAIEVI
MKP-5, SERALISQCGKPVNVSYRPAYDQGGPVEILPFLYLGSAHARXKMDLALGITALINVSANCPNHF--GHYQYKSPVEDNHKADISSWFNEAIDFI
DSP-4 HWEEVEPSSGGGGYVQDLSSDLQGV--IKPMLLLGSQDAHDLDLTKKVKYTHILNWAYVENAF--SDFTYKSPVEDNHKADISSWFNEAIDFI
Consensus p s q g IIP LYLGS a l# \$ g!t LNws pn f f%k !p! D iss f eai FI

101 110 120 130 140 150 160 170 175
PYST1, DEARGKNGVLVHCLAGISRSVTVTVAYLMQKLNLSMNDAYDIVMKKSNISPNFNFQGLLDFERTLGLSS
MKP-7, DEARSKKGVLVHCLAGISRSVTVTVAYLMQKLNLSMNDAYDIVMKKSNISPNFNFQGLLDFERTLGLSS
hVH5 DKAKLSSCQVIVHCLAGISRSATATATYIMKTGMSDDAYRFVKKRPSISPNFNFQGLLDFERTLGLSS
PAC1 DSVKNSGGRVLVHCLAGISRSATATATYIMKTGMSDDAYRFVKKRPSISPNFNFQGLLDFERTLGLSS
MKP-1, DSIKAGGRVIVHCLAGISRSATATATYIMKTGMSDDAYRFVKKRPSISPNFNFQGLLDFERTLGLSS
MKP-4, DAVKDCGRVLVHCLAGISRSATATATYIMKTGMSDDAYRFVKKRPSISPNFNFQGLLDFERTLGLSS
MKP-5, DCVREKGGKVLVHCLAGISRSATATATYIMKTGMSDDAYRFVKKRPSISPNFNFQGLLDFERTLGLSS
DSP-4 EEAKRKGVLVHCLAGISRSATATATYIMKTGMSDDAYRFVKKRPSISPNFNFQGLLDFERTLGLSS
Consensus # ak k g VIVHC AGISRSat! a%ln s A% f!k rr !sPNf F%gQL1 y#

Fig. 3